



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

OFFICE OF  
WATER AND  
WATERSHEDS

May 16, 2014

Ms. Heather Bartlett  
Water Quality Program Manager  
Washington Department of Ecology  
PO Box 47600  
Olympia, Washington 98504-7600

Re: U.S. Environmental Protection Agency 304(a) Recommendations for Ammonia  
and Recreational Criteria

Dear Ms. Bartlett:

I would like to take this opportunity to highlight the EPA's recent publication of final ammonia and recreational water quality criteria recommendations, and urge you to consider adoption of these criteria into Washington's water quality standards. These published criteria documents reflect, once again, the EPA's commitment to improving and updating the science bolstering protection of our Nation's water resources.

As you know, the EPA's water quality standards regulations at 40 CFR 131.11(a)(i) require states and authorized tribes to adopt protective criteria that are based on sound scientific rationale. The publication of the EPA recommendations under Clean Water Act (CWA) section 304(a) provides an excellent opportunity for you and your stakeholders to review existing water quality criteria and determine whether those existing criteria are still, in fact, protective and based on sound scientific rationale. I encourage you to use your triennial review process (required by 40 CFR 131.20(a)) and other opportunities for stakeholder input to provide a venue for public feedback on the need to adopt new or modify existing water quality standards to reflect the latest science. The EPA is available to offer support and technical assistance as you consider adoption of these criteria revisions.

The EPA's CWA section 304(a) criteria recommendations provide scientific recommendations to states and authorized tribes in developing new or revised water quality standards. States and authorized tribes have the discretion to adopt the EPA's criteria recommendations; the EPA's recommendations modified to reflect site-specific conditions; or criteria based on other scientifically defensible methods.

The EPA last issued final ambient water quality criteria recommendations for recreational waters in 1986 and for ammonia in 1999. The new water quality criteria reflect significant research on these pollutants and the levels that are protective of designated uses. Because both of these published criteria rely on the latest research and science, I encourage you, when re-examining your water quality standards during the next triennial review, to consider adoption of these criteria into your water quality standards. If, after you review your existing water quality standards, you conclude that updates to your ammonia and recreational water quality standards are not necessary to protect the designated uses, I urge you to submit your rationale for not making a change in your triennial review.

## Recreational Water Quality Criteria

The EPA developed the recreational water quality criteria, which apply to all waters designated for primary contact recreation, based on a review of historic studies and more recent scientific information including the National Epidemiological and Environmental Assessment of Recreational water studies at U.S. beaches in 2003, 2004, 2005, 2007, and 2009. The studies enrolled 54,250 participants, encompassed nine locations, and collected and analyzed numerous samples from a combination of fresh, marine, tropical, and temperate waters. The resulting criteria have numerous improvements over the 1986 criteria, for example:

- The criteria consist of both a geometric mean and statistical threshold value.
- The criteria now comprise a magnitude, duration, and frequency.
- States and authorized tribes may choose from two different sets of recommended criteria values to protect primary contact recreation waters.
- The criteria recommendations for fresh and marine waters are based on the same illness rate.
- The criteria no longer refer to different use intensities.
- States may take advantage of newly-developed rapid test (qPCR) methods in adopting WQS.
- The criteria document provides Beach Action Values for beach notification programs.

As you know, as a BEACH Act state, Washington has specific requirements regarding recreational water quality criteria. Section 303(i)(1)(B) of the Clean Water Act (as amended by the BEACH Act of 2000) directs each state or authorized tribe with coastal recreational waters to adopt and submit to the EPA new or revised water quality standards for those waters for all pathogens and pathogen indicators to which the new or revised water quality criteria are applicable. The deadline for state or tribal adoption and submittal to EPA of revised WQS is three years from EPA publication of new recommendations. Since EPA published final recreational water quality criteria recommendations in December 2012, BEACH Act states and authorized tribes should complete this action by December 2015.

As noted above, the revised recreational water quality criteria now comprise a magnitude, duration, and frequency. The EPA's revised recreational water quality criteria are:

- **Magnitude:** Select one of two sets of criteria, consisting of a geometric mean (GM) and a related statistical threshold value (STV), which are associated with two different illness rates, as indicated in the table below.

- **Duration and Frequency:** Include duration and frequency of excursion as a component of the state's or authorized tribe's water quality standards. For duration, the GM of a waterbody should not be greater than the selected GM in any 30-day interval. For frequency, no more than 10% of the samples should exceed the STV within those 30 days.

36 illnesses per 1,000 primary contact recreators		32 illnesses per 1,000 primary contact recreators	
GM (cfu/100 mL)	STV (cfu/100 mL)	GM (cfu/100 mL)	STV (cfu/100 mL)
126EC	410EC	100 EC	320EC

You can find more information on the 2012 recreational water quality criteria on the EPA's website, at <http://water.epa.gov/scitech/swguidance/standards/criteria/health/recreation/>.

### Ammonia Criteria

In updating the 1999 ammonia criteria, the EPA conducted an extensive literature review that incorporates new toxicity data from 69 studies, including new data on freshwater mussels and gill-bearing snails, which are both sensitive to ammonia toxicity. In particular, the freshwater mussels are more sensitive to ammonia than the organisms included in the 1999 criteria dataset. You can find more information on the 2013 ammonia water quality criteria on the EPA's website, at <http://water.epa.gov/scitech/swguidance/standards/criteria/aglife/ammonia/>. In addition, we encourage you to contact the EPA to discuss the various approaches to consider when adopting the revised ammonia criteria.

In summary, I hope these new criteria recommendations provide you with information to move forward as you consider changes to your water quality standards in the near future. I appreciate your commitment to protecting water quality and look forward to continuing to work collaboratively towards our mutual goals. If you have any additional questions, please feel free to contact Angela Chung, the Region 10 Water Quality Standards Unit Manager, at (206) 553-6511.

Sincerely,



Daniel D. Opalski, Director  
Office of Water and Watersheds

cc: Ms. Melissa Gildersleeve, Washington Department of Ecology

Ms. Cheryl Niemi, Washington Department of Ecology